Serial No. 09/890,143 Docket No. SHIG 19990241 Amendment E with RCE

AMENDMENTS TO THE CLAIMS:

Please amend claims 8-11 as shown below. This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-7 (canceled)

Claim 8 (currently amended): A method for forming an optical element comprising the steps of:

forming on a substrate a multilayer film composed of alternating layers of high refractive index material and low refractive index material to control a phase and an amplitude of emerging rays; and

irradiating the resulting element and detecting phase and amplitude of emerging rays; and

adjusting a wavefront phase of the emerging rays by cutting away a portion of a surface thereby roughening the surface of the multilayer film in accordance with an amount of adjustment of the wavefront phase.

Claim 9 (currently amended): An optical element forming \underline{A} method according to claim 8, wherein the multilayer film is formed in a number of cycles larger than that necessary to saturate a reflectance.

Claim 10 (currently amended): An optical element forming A method according to claim 8, wherein cutting-away of the multilayer film is controlled by detecting a difference between a plurality of materials material that forms the multilayer film.

Claim 11 (currently amended): [[An]] A method for forming an optical element forming method, comprising the steps of:

HAYES SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701 TEL. 520.882.7623 FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Serial No. 09/890,143 Docket No. SHIG 19990241 Amendment E with RCE

forming on a substrate a multilayer film composed of alternating layers of high refractive index material and low refractive index material in a number of cycles larger than that necessary to saturate a reflectance;

forming a correction film on the multilayer film; and irradiating the resulting element and detecting emerging rays; and

cutting away a portion of a surface thereby roughening the surface of the correction film or the correction film and the multilayer film in accordance with an amount of adjustment of a wavefront phase of emerging rays.

Claims 12-27 (canceled)

HAYES SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701 TEL. 520.882.7623 FAX. 520.882.7643

175 CANAL STREET MANCHESTER, NH 03101 TEL. 603.668.1400 FAX. 603.668.8567